

CLAIMS

1. A surface treated substrate having a fluorocarbon coating characterized in that said treated surface has a static water contact angle (WCA) higher than
5 120°.

2. The substrate of claim 1 characterized in that said treated surface has a static water contact angle (WCA) higher than 130°, preferably between 130° and 165°, most preferably between 155° and 165°.

10 a 3. The substrate of claims ~~1 or 2~~¹ characterized in that said coating is a fluorocarbon coating.

15 4. The substrate of claim 3 characterized in that said coating exhibits a fluorine/carbon ratio (F/C) of between about 1.50 and about 2.00, preferably between about 1.60 and about 1.95, most preferably substantially equal to 1.75.

20 a 5. The substrate of ~~any preceding claims~~¹ characterized in that said substrate is selected in the group consisting of polyethylene, polyacrylics, polypropylene, polyvinyl chloride, polyamides, polystyrene, polyurethanes, polyfluorocarbons, polyesters, silicon rubber, hydrocarbon rubbers, polycarbonates, cellulose and its derivatives, rubber, glass, semiconductors, metals, ceramics.

25 a 6. The substrate of ~~any preceding claims~~¹ characterized in that said substrate is made of a porous material, the porosity of the substrate being substantially unaffected by said coating, preferably said porous material is a perforated film or a fibrous woven or non woven material or an open cell foam material or a porous particulate material.

30 a 7. The substrate of ~~any preceding claims~~¹ characterized in that said substrate is a flexible substrate.

a 8. The substrate of ~~any of the preceding claims~~¹ characterized in that it is formed into a desired shape prior to being coated.

a 5 9. The substrate of ~~any preceding claims~~^{claim 1} obtainable by exposing the substrate to a modulated plasma glow discharge in the presence of a fluorocarbon gas or vapor.

a 10 10. The substrate of ~~any of the claims 1 to 8~~⁸, obtainable by coating the substrate with a film of curable monomer and then curing said film

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FIG. 10